

Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
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Jurisdiction Profile

The following is a summary of key information about the jurisdiction and its history:

Date of Incorporation: 1908

Current Population: The 2020 U.S. Census population was 57,234. The 2022 U.S. Census estimate indicated the population was 55,021.

Population Growth: The overall population has decreased 1.30 percent between 2016 and 2022.

Location and Description: The City of Berwyn is located in Cook County, 10 miles directly east of the City of Chicago. Roosevelt Rd. (12th St. / Rt. 38) is the North Border, Pershing Rd. (39th St.) South, Lombard to the East and Harlem (Rt. 43) to the West. The city has a total area of 3.90 square miles (10.1 square km); all land no lakes or rivers.

Brief History: On June 6, 1908, Berwyn became a city, receiving its official charter from the State of Illinois. The 1910 census recorded Berwyn's population as 5,841. The first two decades of the twentieth century saw Berwyn develops in much the same way as other Chicago suburbs. It was a place in which, as "The WPA Guide to Illinois" states, "harried commuters relaxed in the evening, weeded gardens, set hens, and mowed their lawns." In 1921, the central portion of the city began its rapid development. Large numbers of Czechs moved from the Pilsen area on Chicago's near West Side to Berwyn and its neighbor on the east, Cicero. Literally thousands of new homes were built each year. The population growth and the infill of vacant land finally brought the two parts of Berwyn together. Berwyn's construction boom continued into the Roaring Twenties, as farms and fields gave way overnight to new homes. Entire blocks were built at once, with contractors digging all basements simultaneously, then bringing in crews to lay foundations, followed by carpenters, bricklayers and plasterers. Block after block of bungalows rose as Berwyn's population swelled; from 14,150 in 1920 to 47,027 in 1930 - an increase of 222% in just ten years. Today, Berwyn has the most significant collection of Chicago-style bungalows in the nation. Traditionally, Berwyn Bungalows are one-story buildings with basement and attic, two to three bedrooms, and a living and dining room.

Climate: Berwyn’s climate is typical of suburban Chicago and the Midwest in general. Average rainfall is 32 inches per year and average snowfall is 24 inches. The average year round temperature is 48.2 degrees. In July the average high temperature is 83 degrees and in January the average low temperature is 11 degrees. The average humidity is 72.27%

Governing Body Format: Berwyn is a City with a Mayor and a City Manager. This body will assume the responsibility for the adoption and implementation of this plan. The city is divided into 8 wards with the Aldermen from each ward forming the City Council. Berwyn also has a Township Board that is elected separately from the city including a Health Department. Berwyn Township was established by the Illinois Legislature in 1922 as one of the few coterminous townships in the state. The Berwyn Public Health District was established at the same time. Berwyn operates 18 departments including a Building Department, Community Development, Finance Department, Fire Department, Police Department, and Water Department.

Development Trends: The city has the Berwyn Development Corporation (BDC), a separate entity of the city that operates in direct conjunction with the city. The BDC develops plans, manages Tax Increment Financing (TIF) districts and develops marketing plans for the City of Berwyn. Berwyn is a city of homes with no industry. There are 3 main commerce corridors in Berwyn, Roosevelt Road that borders Oak Park, Ogden Ave. or Route 66 and Cermak Road or 22nd Street. Many new restaurant and assemblies have been completed or are in the plans. Cermak Rd Gateway project is new construction of redeveloped (demolished) properties. Ogden and Roosevelt Rd. are primarily redeveloped properties, small business (stores), auto dealerships and some restaurants.

Changes in Community Priorities: We have directed our focus on flood mitigation and green projects for a more sustainable solution to water dispersal.

Capability Assessment

The assessment of the jurisdiction’s legal and regulatory capabilities is presented in the *Legal and Regulatory Capability Table* below. The assessment of the jurisdiction’s fiscal capabilities is presented in the *Fiscal Capability Table* below. The assessment of the jurisdiction’s administrative and technical capabilities is presented in *Administrative and Technical Capability Table* below. Information on the community’s National Flood Insurance Program (NFIP) compliance is presented in the *National Flood Insurance Program Compliance Table* below. Classifications under various community mitigation programs are presented in the *Community Classifications Table* below.

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	Yes	No	BMC, Part 14, Chapters 1420, 1428 1/9/07
Zonings	Yes	No	Yes	No	BMC, Part 12, Title 4, 1/12/2010
Subdivisions	Yes	No	No	No	220.01 022010

Stormwater Management	Yes	No	Yes	No	104 -1957, MWRD
Post Disaster Recovery	Yes	No	No	No	BMC Title 6, Chapter 240, 9/28/2010
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	Yes	No	No	No	Zoning Board and Berwyn Development Board
Site Plan Review	Yes	No	No	No	287.012002
Public Health and Safety	Yes	No	Yes	Yes	Ord. 98-02, 264.01 passed 1-13 -1998
Environmental Protection	No	No	No	No	
Planning Documents					
General or Comprehensive Plan	Yes	No	No	No	Comprehensive Plan adopted August 2012
<i>Is the plan equipped to provide integration to this mitigation plan?</i>					Yes, Plan include land use and natural environment elements.
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	No	No	
Capital Improvement Plan	Yes	No	No	No	In draft form
<i>What types of capital facilities does the plan address?</i>					Water, Transportation, sewer, Parks and rec
<i>How often is the plan revised/updated?</i>					6-year CIP, reviewed and approved annually
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	Yes	No	Yes	Yes	210.09 12, BDC

Shoreline Management Plan	No	No	No	No	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	No	No	No	240.01 2010
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County EMRS Preparing THIRA
Terrorism Plan	Yes	No	Yes	No	Cook County EMRS
Post-Disaster Recovery Plan	No	No	No	No	
Continuity of Operations Plan	Yes	No	Yes	No	Cook County EMRS
Public Health Plans	No	No	Yes	No	Cook County DPH

TABLE: FISCAL CAPABILITY	
Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	No
Other	

TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Public Works, City Engineer, Novotnev & Associates
Engineers or professionals trained in building or infrastructure construction practices	Yes	City Engineer, Novotnev & Associates
Planners or engineers with an understanding of natural hazards	Yes	City Engineer, Novotnev & Associates
Staff with training in benefit/cost analysis	Yes	Finance Director and City Adm.
Surveyors	Yes	Novotnev & Associates

Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	Yes	N/A
Emergency manager	Yes	Tony Laureto, Brian Pabst
Grant writers	Yes	Nichole Campbell, All Department Heads, Brian Pabst, Evan Summers, BDC, Curtis Posgay

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	N/A
Who is your jurisdiction’s floodplain administrator? (department/position)	N/A
Are any certified floodplain managers on staff in your jurisdiction?	N/A
What is the date of adoption of your flood damage prevention ordinance?	N/A
When was the most recent Community Assistance Visit or Community Assistance Contact?	N/A
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	N/A
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	N/A
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	N/A
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	N/A
Note: Berwyn does not currently participate in the NFIP, or have a mapped Special Flood Hazard Area by FEMA - Berwyn is A Non-Special Flood Hazard Area (NSFHA).	

NFIP Participation Activities

Maintaining compliance under the NFIP is an important component of flood risk reduction. All planning partners that participate in the NFIP have identified actions to maintain their compliance and good standing. Cook County entered the NFIP on April 15, 1981. Structures permitted or built in the County before then are called “pre-FIRM” structures, and structures built afterwards are called “post-FIRM.” The insurance rate is different for the two types of structures. The effective date for the current countywide FIRM is August 19, 2008. This map is a DFIRM (digital flood insurance rate map). The communities in Cook County that participate in the NFIP are shown in **Table: NFIP Participating Communities in Cook County** in **Volume I** of the Cook County MJ-HMP.

The NFIP makes federally-backed flood insurance available to homeowners, renters, and business owners in participating communities. The communities in Cook County that participate in the NFIP and their "Policies in Force," "Total Coverage," and "Total Written Premiums" are shown in **Table: Cook County Flood Insurance Policies** in **Volume I** of the Cook County MJ-HMP.

- The following are the NFIP-related activities completed by our community:
- My community teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars.
- Our community enforces local floodplain regulations and monitors compliance.

- Our floodplain development regulations meet or exceed Federal Emergency Management Agency (FEMA) or State minimum requirements.
- Our staff provide the following services: permit reviews, GIS, inspections, engineering capability.
- My community's Floodplain Administrator is a Certified Floodplain Manager (CFM).

Substantial Improvement Rule and the Substantial Damage Rule

The IDNR/OWR has developed a model ordinance for floodplain management, which has been adopted by most communities in Illinois. The ordinance includes the minimum requirements an NFIP participating jurisdiction must adopt and enforce, as well as additional higher regulatory requirements. The optional, higher regulatory standards include a minimum one foot of freeboard above the base flood elevation and cumulative tracking of damage repairs and improvements to establish substantial damage and substantial improvement compliance. Some jurisdictions have chosen to exceed the requirements of the model ordinance and have adopted more restrictive ordinances. This is most common in the communities in northeastern Illinois.

Existing Municipal Code:

1042.25 Development in Floodplain Areas

(B) *Definitions.* Unless specifically defined below, word or phrases used in this section shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this document its most reasonable application.

(7) **SUBSTANTIAL DAMAGE.** Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50% of the market value of the structure before the damage occurred regardless of actual repair work performed. Volunteer labor and materials must be included in this determination.

(8) **SUBSTANTIAL IMPROVEMENT.** Any reconstruction, rehabilitation, addition, or improvement of a structure, the cost of which equals or exceeds 50% of the current market value or assessed value, whichever is less, of the structure before the improvement or repair is started, **SUBSTANTIAL IMPROVEMENT** is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

Their ordinance did not include substantial improvement / substantial damage rule provisions; future updates will consider inclusion of these rules as applicable and as appropriate.

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown
Public Protection/ISO	Yes	ISO 2	Unknown
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	Tree City USA	1986

Opportunities to Expand and Improve Capabilities

The capability to disperse water during a storm is one of the most important issues facing the City of Berwyn. Several mitigation projects have been dedicated to this effort, but funding is a major issue. Grant writers and improved assessments for mitigations would greatly improve our efforts to reduce flooding for the residents.

Plan Integration

The capability assessment describes opportunities to "link" or integrate the mitigation plan into other planning mechanisms. The process and mechanism to identify opportunities to integrate the Cook County MJ-HMP into other planning mechanisms will occur during the Annual Update Process and be reflected in the Jurisdictional Annual Report each year. Specific plan integration opportunities will include:

- The goals and actions of the Hazard Mitigation Plan will be considered in the next capital improvement planning process.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the Comprehensive Plan.
- The hazards, goals, and actions of the Hazard Mitigation Plan will be considered in the next update of the jurisdiction's land use plans, zoning, and subdivision codes.

Emergency Plan Integration:

Cook County EMRS is supporting communities to develop and update their respective Emergency Operations Plans, Continuity of Operations Plan/Continuity of Government Plan, and Recovery Plan in 2024. This is an ongoing countywide initiative and is being implemented in all municipalities.

Emergency Operations Plan (EOP)

An EOP template was created for all municipalities. The 2019 Cook County MJ-HMP and the hazards in the mitigation plan have been integrated into the Situation and Assumptions section of the EOP. Within that section, the natural hazards based on the 2019 MJ-HMP were added in the Initial Analysis and Assessment and Identification of Hazards section of the EOP. The hazards in the 2019 plan and the 2024 MJ-HMP did not change apart from adding wildfires for the Forest Preserve and unincorporated areas of the County. Future updates of the EOP will take into consideration any additional new natural hazards that are added to subsequent updates to the MJ-HMP.

Continuity of Operations Plan (COOP)

The Continuity of Operations Plan (COOP) for the municipality includes a Situation section that is based on the 2019 Cook County MJ-HMP jurisdictional annex, and specifically the hazards identified in the annex. The COOP-specific risk assessment is hazard-specific and based on likelihood of occurrence and severity of impact.

Recovery Plan

The goals of the Recovery Plan were developed to align with the 2019 Cook County MJ-HMP, and specifically prioritizes the responsibility of officials under this plan to save lives, protect property, relieve human suffering, sustain survivors, repair essential facilities, restore services, and protect the environment. The plan acknowledges that hazard mitigation is an important priority and consideration during the rebuilding process.

Jurisdiction-Specific Natural Hazard Event History

The information provided below was solicited from the jurisdiction and supported by NOAA and other relevant data sources.

The *Natural Hazard Events Table* lists all past occurrences of natural hazards within the jurisdiction. Repetitive flood loss records are as follows:

- Number of FEMA-Identified Repetitive Loss Properties: 2 (1 Single Family, 1 Other Residential)
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

Federal Disasters Declared

Disaster Declaration Number	Date Declared	Event
DR-227	4/25/1967	Tornado
DR-351	9/4/1972	Flood
DR-373	4/26/1973	Flood
DR-509	6/18/1976	Severe Storm(s)
DR-643	6/30/1981	Severe Storm(s)
DR-776	10/7/1986	Flood
DR-798	8/21/1987	Flood
DR-997	7/9/1993	Flood
DR-1129	7/25/1996	Severe Storm(s)
DR-1188	9/17/1997	Severe Storm(s)
DR-1729	9/25/2007	Severe Storm(s)
DR-1800	10/3/2008	Severe Storm(s)
DR-1935	8/19/2010	Severe Storm(s)
DR-1960	3/17/2011	Snow
EM-3068	1/16/1979	Snow
EM-3134	1/8/1999	Snow
EM-3161	1/17/2001	Snow
EM-3230	9/7/2005	Hurricane – Katrina Evacuation
EM-3435	3/13/2020	Biological
DR-4116	5/10/2013	Flood
DR-4489	3/26/2020	Biological
DR-4728	8/15/2023	Severe Storm(s)
DR-4749	11/20/2023	Flood

State Disaster Declarations

Date Declared	Event
7/26/2010	Severe Storms, High Winds, Torrential Rain
1/31/2011	Winter Weather
4/25/2011 5/25/2011	High Wind, Tornadoes, Torrential Rain

4/18/2013 4/20/2013 4/21/2013 4/25/2013 4/30/2013	Severe Storms, Heavy Rainfall, Flooding, Straight-line Winds
1/6/2014	Heavy Snowfall, Frigid Temperatures
7/12/2017 7/14/2017	Thunderstorms, Heavy Rainfall, Flooding
1/29/2019	Winter Storm
2/6/2020	Severe Storms
3/12/2020 – present (reissued monthly)	COVID-19
2/16/2021	Winter Storms
2/1/2022	Winter Storms
8/1/2022 (reissued monthly through 10/28/2022)	Monkeypox

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment/ Event Narrative
Tornado	-	9/3/2018	-
Severe Weather	-	8/1/2017	-
Severe Winter Weather	-	12/13/2013	-
Severe Wind Storm	-	10/2013	Trees, Power lines down, minimal property damage
Severe Winter Weather	-	12/2012	-
Strong Winds	-	11/2012	Trees, Power lines down, minimal property damage
Severe Heat	-	7/2012	-
Severe Storms, Straight-Line Winds and Flooding	DR-4116	4/26/2012	Storm water flooding to residential basements
Severe Winter Storm and Snowstorm	DR-1960	1/31/2011	-
Severe Storms and Flooding	DR-1935	7/19/2010	Storm water flooding to streets and residential basements
Severe Storms and Flooding	DR-1800	9/13/2008	Storm water flooding to streets and residential basements
Severe Wind Storm	-	8/2008	Trees, Power lines down, minimal property damage
Severe Storms and Flooding	DR-1729	8/2007	Storm water flooding to streets and residential basements
Severe Winter Weather	-	12/2007	-

Severe Wind Storms	-	9/2006	Trees, Power lines down, minimal property damage
Excessive Heat	-	8/2005	-
Severe Storms and Flooding	-	3/2004	Storm water flooding to streets and residential basements
Severe Storms and Flooding	DR-1188	8/1997	-

Jurisdiction-Specific Hazards: Vulnerabilities and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2024 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

Earthquake: The City of Berwyn was largely built in the 1920's, including the 5 story MacNeal hospital and railroad tracks that split the city in half. With the City's aging infrastructure, an earthquake would effect thousands of patients in the hospital, the city's residents, and city services. A severe earthquake may cut the city in half due to impeded transportation.

Flooding: In 2000, very heavy rains caused urban flooding throughout the community with all major intersections underwater for nearly four hours. Flooding continues to be a problem, especially as the result of heavy rains. In 2023, the City of Berwyn was part of 2 separate FEMA recognized disaster declarations for flooding. The storm water drainage system is aging and cannot keep up with the increasing demand.

Severe Weather and Wind: In 1995, due to a thunderstorm two trees toppled over, one landed on the roof of a house. Another tree branch fell on a house and a van. Wind damage continues to be an issue, especially for above-ground powerlines and trees. Power Outages can occur and are especially a problem for critical facilities. Additionally, there is a population of residents that live at or below the poverty line that struggle to afford and maintain heat/AC in their homes. Extreme temperatures would stress this population along with the 11% of the population that is disabled.

Severe Winter Weather: With 60,000 residents and 3 major arteries in and out of the City of Chicago, (Ogden Ave., Cermak Rd., and Roosevelt Rd.) heavy snow or ice can cripple traffic and isolate the entire community.

Indicator	Number	Percent
Families in poverty	1,114	9%
People with disabilities	5,127	9.4%
People over 65 years	6,849	12.5%
People under 5 years	3,764	6.9%
People of color	40,484	73.8%
Black	4,264	7.8%
Native American	163	0.3%
Hispanic	34,255	62.5%
Difficulty with English	4,872	9.5%
Households with no car	1,598	8.7%
Mobile homes	84	0.5%

Data are from the U.S. Census Bureau, American Community Survey. See methods for more information.

The community evaluated whether vulnerability, and subsequently the potential impacts, in hazard-prone areas had increased, decreased, or remained the same for each natural hazard identified in

this Hazard Mitigation Plan. Climate change, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard area or is not built to the updated building codes, it may increase the community’s vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics were taken into consideration when assessing development trends.

Jurisdiction-Specific Climate Change Vulnerability and Impacts

The table below outlines if climate change, as assessed by the local planning team, has increased or decreased the municipality’s vulnerability/exposure, and thereby the potential impacts, to each natural hazard over the past five (5) years (**Current Vulnerability**), and the effect of climate change in the future probability of occurrence and impacts (**Future Vulnerability**) from each natural hazard.

Hazard	Vulnerability
Current Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Increased
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Remained the Same
Wildfire (Wildfire Smoke)	Not Applicable

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	Increase
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Increase
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Increase
Tornado	No Change is Anticipated
Wildfire (Wildfire Smoke)	Not Applicable

Jurisdiction-Specific Changes (or Expected Changes) in Development Trends in Hazard-Prone Areas

The table below outlines if development, as assessed by the local planning team, over the past five (5) years (**Current Vulnerability**) has increased or decreased the jurisdiction’s vulnerability/exposure, and thereby the potential impacts, to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts (**Future Vulnerability**) from these natural hazards.

Hazard	Vulnerability
Current Vulnerability	

Dam and Levee Failure	Not Applicable
Drought	Remained the Same
Earthquake	Remained the Same
Flood (Riverine, Urban, Shoreline)	Remained the Same
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	Remained the Same
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	Remained the Same
Tornado	Remained the Same
Wildfire (Wildfire Smoke)	Not Applicable

Hazard	Vulnerability
Future Vulnerability	
Dam and Levee Failure	Not Applicable
Drought	No Change is Anticipated
Earthquake	No Change is Anticipated
Flood (Riverine, Urban, Shoreline)	No Change is Anticipated
Severe Weather (Extreme Heat, Lightning, Hail, Fog, High Winds)	No Change is Anticipated
Severe Winter Weather (Ice Storms, Heavy Snow, Blizzards, Extreme Cold)	No Change is Anticipated
Tornado	No Change is Anticipated
Wildfire (Wildfire Smoke)	Not Applicable

The City of Berwyn is densely populated with approximately 55,000 residents within 3.9 square miles. 61% of the population is Hispanic, with 11% of the population in poverty and another 6.1% disabled. In 2023, 2 separate disaster declarations were made due to flooding. Severe weather such as flooding, high winds, extreme temperatures, and heavy snows stress services and infrastructure due to a population that relies on assistance programs.

Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

Rank	Hazard Type
1	Severe Weather
2	Severe Winter Weather
3	Tornado
4	Earthquake
5	Flood
6	Drought
7	Dam Failure

New Mitigation Actions

The following are new mitigation actions created during the 2024 update.

Action B-4.17

Mitigation Action #17: Reinstate the Downspout Disconnect Program for Residents					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations: Engineering	Estimated Cost: \$1 Million	Potential Funding Source: General Fund, HMGP, FMA Program	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline)
Year Initiated		2024			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective					
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Flood protection best practice to reduce the discharge of large volumes of water into sewers during heavy rains			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action B-4.18

Mitigation Action #18: Provide Public Education for Emergency Preparedness					
Lead Agency/Department Organization: Fire Department	Supporting Agencies/Organizations: Berwyn Township	Estimated Cost: Low	Potential Funding Source: General Fund, Township General Fund	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: All
Year Initiated		2024			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1,2,3,4,5,6			
Applicable Objective		1,3,5,6,8,11,12,13			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Provide public education for emergency preparedness in regards to flooding, high winds, extreme temperatures, and winter storms.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action B-4.19

Mitigation Action #19: 16th St. Utility and Roadway Improvements					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations:	Estimated Cost: High, \$8,000,000	Potential Funding Source: Surface Transportation Program State Special Grants	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline) Severe Winter Weather (Snow, Blizzard, Ice Storm)
Year Initiated		2024			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1,2,3,5			
Applicable Objective					
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		The action plan includes the design and construction of water main repairs, water services, sewer repairs, sewer lining, green infrastructure drainage and landscaping, and sidewalk and streetscape amenities.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action B-4.20

Mitigation Action #20: Access to Transit Utility and Roadway Improvements					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations:	Estimated Cost: High; 13,000,000.00	Potential Funding Source: Surface Transportation Program; Invest in Cook Grant Funds	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline) Severe Winter Weather (Snow, Blizzard, Ice Storm)
Year Initiated		2024			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1,2,3,5			
Applicable Objective		1,3,5,6,8,11,12,13			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		The project will improve the safety, operations, and drainage conditions though out the corridor. It includes roadway reconstruction for new storm sewers to separate runoff from the sanitary flows, green infrastructure, lining, and landscape, and water main repairs and water service line replacement as needed.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action B-4.21

Mitigation Action #21: East Ave. Roadway Improvements					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations:	Estimated Cost: High; \$16,200,000	Potential Funding Source: STP, IEPA, MWRD	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline) Severe Winter Weather (Snow, Blizzard, Ice Storm)
Year Initiated		2024			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1,2,3,5			
Applicable Objective		1,3,5,6,8,11,12,13			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		The project includes replacing undersized water mains and sewer systems. The water mains replacement includes the hydrant system used to protect against fire loss. The sewer aspect includes repairs/replacements, lining, and installation of catch basins. Roadway improvements will include curb and gutter repair for water management and green infrastructure and landscaping.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		N			

Action B-4.22

Mitigation Action #22: 34th St. Utility and Roadway Improvements					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations:	Estimated Cost: High; \$6,000,000	Potential Funding Source: STP, IEPA, MWRD	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline) Severe Winter Weather (Snow, Blizzard, Ice Storm) Epidemic or Pandemic
Year Initiated	2024				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	1,2,3,5				
Applicable Objective	1,3,5,6,8,11,12,13				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:	The action plan includes the design and construction of water main repairs, water services, sewer repairs, sewer lining, green infrastructure drainage and landscaping, and sidewalk and streetscape amenities. Reduce flooding and protect critical infrastructure (hospital, schools)				
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N				

Action B-4.23

Mitigation Action #23: Cermak Road Roadway Improvement					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations:	Estimated Cost: High; \$20,000,000	Potential Funding Source: ARPA, TIF, IEPA, MWRD, BRIC, HMGP	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline) Severe Winter Weather (Snow, Blizzard, Ice Storm)
Year Initiated	2024				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	1,2,3,5				
Applicable Objective	1,3,5,6,8,11,12,13				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	High				
Action/Implementation Plan and Project Description:	The action plan includes the design and construction of water main repairs, water services, sewer repairs, sewer lining, green infrastructure drainage and landscaping, and sidewalk and streetscape amenities. It will also upgrade, replace, and repair the hydrant system in the City's largest business corridor and main thoroughfare.				
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N				

Action B-4.24

Mitigation Action #24: Janura Park Stormwater Detention					
Lead Agency/Department Organization: Public Works	Supporting Agencies/Organizations: Berwyn Park District	Estimated Cost: High; \$6,000,000	Potential Funding Source: IEPA, MWRD, BRIC, HMGP	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood (Riverine, Urban, Coastal/Shoreline) Severe Winter Weather (Snow, Blizzard, Ice Storm)
Year Initiated	2024				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	1,2,3,5				
Applicable Objective	1,3,5,6,8,11,12,13				
Cost Analysis (Low, Medium, High)	High				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:	The project will directly effect 24 acres of residential neighborhood with flooding and sewer back-up. The area is the location where snow is removed to during large falls, to dissipate into the ground instead of the aging sewer system to reduce flooding.				
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	N				

Ongoing Mitigation Actions

During the 2024 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

Action B-4.1

Mitigation Action #B - 4.1: Where appropriate, support retrofitting, purchasing, or relocating structures in hazard-prone areas to prevent future damage. Give priority to properties with exposure to repetitive losses.					
Lead Agency/Department Organization: Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: High	Potential Funding Source: BRIC, HMGP	Estimated Projected Completion Date: Long-term (depending on funding)	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		2, 3, 5			
Applicable Objective		7, 13			
Cost Analysis (Low, Medium, High)		High			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		High			
Action/Implementation Plan and Project Description:		Berwyn has no structures that are considered hazard-prone or that have had repetitive losses			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action B-4.2

Mitigation Action #B - 4.2: Continue to support the countywide actions identified in this plan.					
Lead Agency/Department Organization: Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short- and long-term	Hazard(s) Mitigated: All
Year Initiated		2014			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		All			
Applicable Objective		All			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action B-4.3

Mitigation Action #B - 4.3: Actively participate in the plan maintenance strategy identified in this plan.					
Lead Agency/Department Organization: EMRS, Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated					
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1, 2, 3, 6			
Applicable Objective		3, 4, 6			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		High			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority		O			
Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed					

Action B-4.4

Mitigation Action #B- 4.4: Participation in incentive-based programs such as Tree City and StormReady.					
Lead Agency/Department Organization: Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: Low	Potential Funding Source:	Estimated Projected	Hazard(s) Mitigated: All

			General Fund	Completion Date: Long-term	
Year Initiated	2014				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	1, 2, 3, 6				
Applicable Objective	3, 4, 5, 6, 7, 9, 10, 11, 13				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	Medium				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:					
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O/Participating				

Action B-4.5

Mitigation Action #B - 4.5: Consider participation in the National Flood Insurance Program as a non-mapped, participating community.					
Lead Agency/Department Organization: Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term and ongoing	Hazard(s) Mitigated: Flooding
Year Initiated	2014				
Applicable Jurisdiction	City of Berwyn				

Applicable Goal	1, 2, 3, 5
Applicable Objective	4, 6, 9
Cost Analysis (Low, Medium, High)	Low
Priority and Level of Importance (Low, Medium, High)	High
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	Berwyn has no floodplains in its jurisdiction.
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action B-4.6

Mitigation Action #B - 4.6: Where feasible, implement a program to record high water marks following high water events.					
Lead Agency/Department Organization: Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: Medium	Potential Funding Source: General Fund; FEMA Public Assistance (PA)	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flooding, Severe Weather
Year Initiated	2014				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	1, 2, 3, 5				
Applicable Objective	3, 6, 9				
Cost Analysis (Low, Medium, High)	Medium				
Priority and Level of Importance (Low, Medium, High)	Medium				

Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium
Action/Implementation Plan and Project Description:	Berwyn has no flood plain areas and is not adjacent to rivers or streams or water retention
Actual Completion Date or Ongoing Indefinite	
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O

Action B-4.7

Mitigation Action #B - 4.7: Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.					
Lead Agency/Department Organization: Public Works, City Engineer, Novotney & Associates	Supporting Agencies/Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Short-term	Hazard(s) Mitigated: All
Year Initiated	2014				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	1, 2, 3, 5, 6				
Applicable Objective	3, 4, 6, 10, 13				
Cost Analysis (Low, Medium, High)	Low				
Priority and Level of Importance (Low, Medium, High)	High				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Medium				
Action/Implementation Plan and Project Description:	New ordinances have be passed that require impermeable paving, water retention and green space use				
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority	O				

<p>Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed</p>	
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Action B-4.8

Mitigation Action #B - 4.8: Evaluating the City's building code enforcement program under the Building Code Effectiveness Grading Schedule.					
Lead Agency/Department Organization: Berwyn Administration	Supporting Agencies/Organizations:	Estimated Cost: Low	Potential Funding Source: General Fund	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: All Hazards
Year Initiated		2014			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1, 2, 3			
Applicable Objective		3, 10			
Cost Analysis (Low, Medium, High)		Low			
Priority and Level of Importance (Low, Medium, High)		Medium			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Medium			
Action/Implementation Plan and Project Description:		Changes have been made to the Electric and plumbing codes and adopted by city council. New changes have been made in the zoning regarding setbacks on buildings and structure height, creating more stable building construction and roof lines.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed;		O			

R = Want Removed from Annex; X = No Action Taken/Delayed	
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Action B-4.9

Mitigation Action #B - 4.9: Publicize, train, and maintain a Community Emergency Response Team (CERT).					
Lead Agency/Department Organization: Berwyn Emergency Management Agency	Supporting Agencies/Organizations: Berwyn Fire and Police Departments	Estimated Cost: \$10,000; Medium	Potential Funding Source: SHSP, General Fund	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: All
Year Initiated	2019				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	All				
Applicable Objective	6				
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.				
Priority and Level of Importance (Low, Medium, High)	High Priority				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Extra personnel in the event of disaster or emergency and to aiding preparedness, project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.				
Action/Implementation Plan and Project Description:	CERT would create greater awareness and preparedness in the community. Along with trained personnel and some would bring in their level training or job-related expertise.				
Actual Completion Date or Ongoing Indefinite	2021				
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed;	X				

R = Want Removed from Annex; X = No Action Taken/Delayed	
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Action B-4.10

Mitigation Action #B - 4.10: Publicize, train, and maintain Citizens Fire and Police Academies.					
Lead Agency/Department Organization: Berwyn Fire and Police Departments	Supporting Agencies/Organizations: BEMA	Estimated Cost: \$10,000	Potential Funding Source: General Fund, SHSP	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: All
Year Initiated	2019				
Applicable Jurisdiction	City of Berwyn				
Applicable Goal	All				
Applicable Objective	6				
Cost Analysis (Low, Medium, High)	Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.				
Priority and Level of Importance (Low, Medium, High)	High Priority				
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)	Engaging the citizens in the duties and responsibilities of Police and Paramedic/Firefighters, Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.				
Action/Implementation Plan and Project Description:	This is a program that we have had in the past and was very successful. We plan on expanding on this by recommending that graduates of the academy continue with the CERT program.				
Actual Completion Date or Ongoing Indefinite	Ongoing				
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed	O				

Action B-4.11

Mitigation Action #B - 4.11: Sewer Rehab					
Lead Agency/Department Organization: Berwyn Public Works	Supporting Agencies/Organizations: BEMA	Estimated Cost: High	Potential Funding Source: BRIC, HMGP, General Fund	Estimated Projected Completion Date: Long-term	Hazard(s) Mitigated: Flood
Year Initiated		2023/2020			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		2, 3, 5			
Applicable Objective		2, 3, 5			
Cost Analysis (Low, Medium, High)		High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importance (Low, Medium, High)		Medium Priority			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Better disperse water from storms to avoid residential flooding, Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.			
Action/Implementation Plan and Project Description:		Sewer Rehab to include televising, cleaning, repairing, and relining sewers			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action B-4.12

Mitigation Action #B - 4.12: Cost share program for storm drain check valve installation					
Lead Agency/Department Organization: Berwyn Public Works	Supporting Agencies/Organizations: BEMA	Estimated Cost: \$500,000	Potential Funding Source: HMGP, BRIC	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood
Year Initiated		2023/2020			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1, 4, 5, 6			
Applicable Objective		1,4,5,6			
Cost Analysis (Low, Medium, High)		Medium—The project could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.			
Priority and Level of Importance (Low, Medium, High)		Medium Priority			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Reduce residential flooding, Project will provide an immediate reduction of risk exposure for life and property.			
Action/Implementation Plan and Project Description:		Rebates are offered to residents who have a check valve installed in their property to stop residential flooding. \$500,000 per year is dedicated to this project.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action B-4.13

Mitigation Action #B - 4.13: Depot District water management program					
Lead Agency/Department Organization: Berwyn Public Works	Supporting Agencies/Organizations: BEMA	Estimated Cost:	Potential Funding Source: General Fund, HMGP, BRIC	Estimated Projected Completion Date: 2024	Hazard(s) Mitigated: Flood
Year Initiated		2023/2021			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		All			
Applicable Objective		1, 2, 3, 4, 5, 6			
Cost Analysis (Low, Medium, High)		Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.			
Priority and Level of Importance (Low, Medium, High)		High Priority			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Not overloading the wastewater sewer system, Project will provide an immediate reduction of risk exposure for life and property.			
Action/Implementation Plan and Project Description:		The installation of a dedicated storm sewer separate from the wastewater system and permeable parking in the depot district around the hospital.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Action B-4.14

Mitigation Action #B - 4.14: Green Alleys					
Lead Agency/Department Organization: Berwyn Public Works	Supporting Agencies/Organizations: BEMA	Estimated Cost: \$228,240,000	Potential Funding Source: General Fund, HMGP, BRIC	Estimated Projected Completion Date: 2040	Hazard(s) Mitigated: Flood
Year Initiated		2023/2020			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1, 3, 5			
Applicable Objective		1, 3, 5			
Cost Analysis (Low, Medium, High)		High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).			
Priority and Level of Importance (Low, Medium, High)		Medium Priority			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Reduce residential flooding and reduce overloading of the storm drain system, Project will provide an immediate reduction of risk exposure for life and property.			
Action/Implementation Plan and Project Description:		Permeable pavements (asphalt, concrete or pavers) that allow storm water to filter through the pavement and drain into the ground, instead of collecting on hard surfaces or draining into the sewer system. The pavement can be used on the full width of an alley, or simply in a center trench. Catch basins connected with perforated pipe and installed in retention trench to capture water and funnel it into the ground High-albedo pavement, a lighter-colored surface that reflects sunlight instead of absorbing it, helping reduce the urban heat island effect Recycled materials, such as concrete aggregate, slag and recycled tire rubber			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion;		O			

<p>O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed</p>	
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Action B-4.15

Mitigation Action #B - 4.15: Tree Pruning and replacement					
<p>Lead Agency/Department Organization: Berwyn Public Works</p>	<p>Supporting Agencies/Organizations: BEMA</p>	<p>Estimated Cost: \$250,000</p>	<p>Potential Funding Source: General Fund</p>	<p>Estimated Projected Completion Date: Ongoing</p>	<p>Hazard(s) Mitigated: Lightning, High Wind, Severe Winter Weather, Widespread power outage</p>
Year Initiated		2023/2018			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1, 2, 3, 4, 5			
Applicable Objective		1,2,3,4,5			
Cost Analysis (Low, Medium, High)		Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.			
Priority and Level of Importance (Low, Medium, High)		Medium Priority			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Keeps dead branches from effecting powerlines and other infrastructure, Long-term benefits of the project are difficult to quantify in the short term.			
Action/Implementation Plan and Project Description:		Public works assesses trees damaged by emerald ash bores and other plight and trims or replaces the trees to avoid damage during high winds and storms.			
Actual Completion Date or Ongoing Indefinite					
<p>Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed</p>		<p>O</p>			

Action B-4.16

Mitigation Action #B - 4.16: Snow Removal					
Lead Agency/Department Organization: Berwyn Public Works	Supporting Agencies/Organizations: BEMA	Estimated Cost: \$150,000	Potential Funding Source: General Fund	Estimated Projected Completion Date: Ongoing	Hazard(s) Mitigated: Flood, Severe Winter Weather
Year Initiated		2023			
Applicable Jurisdiction		City of Berwyn			
Applicable Goal		1, 2, 3, 5			
Applicable Objective		1, 2, 3, 5			
Cost Analysis (Low, Medium, High)		Low—The project could be funded under the existing budget. The project is part of or can be part of an ongoing existing program.			
Priority and Level of Importance (Low, Medium, High)		High Priority			
Benefits of the Mitigation Project (Loss Avoided or Issue Being Mitigated)		Prevents loss of roadways/travel and critical services, Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.			
Action/Implementation Plan and Project Description:		24 hour services include de-icing, anti-icing, and snow removal to green spaces that allow the snow to melt into the ground instead of the storm system.			
Actual Completion Date or Ongoing Indefinite					
Project Status & Changes in Priority Completion status legend: N = New; I = In Progress Toward Completion; O = Ongoing Indefinitely; C = Project Completed; R = Want Removed from Annex; X = No Action Taken/Delayed		O			

Completed Actions

Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

Completed Action Items
No completed actions at this time

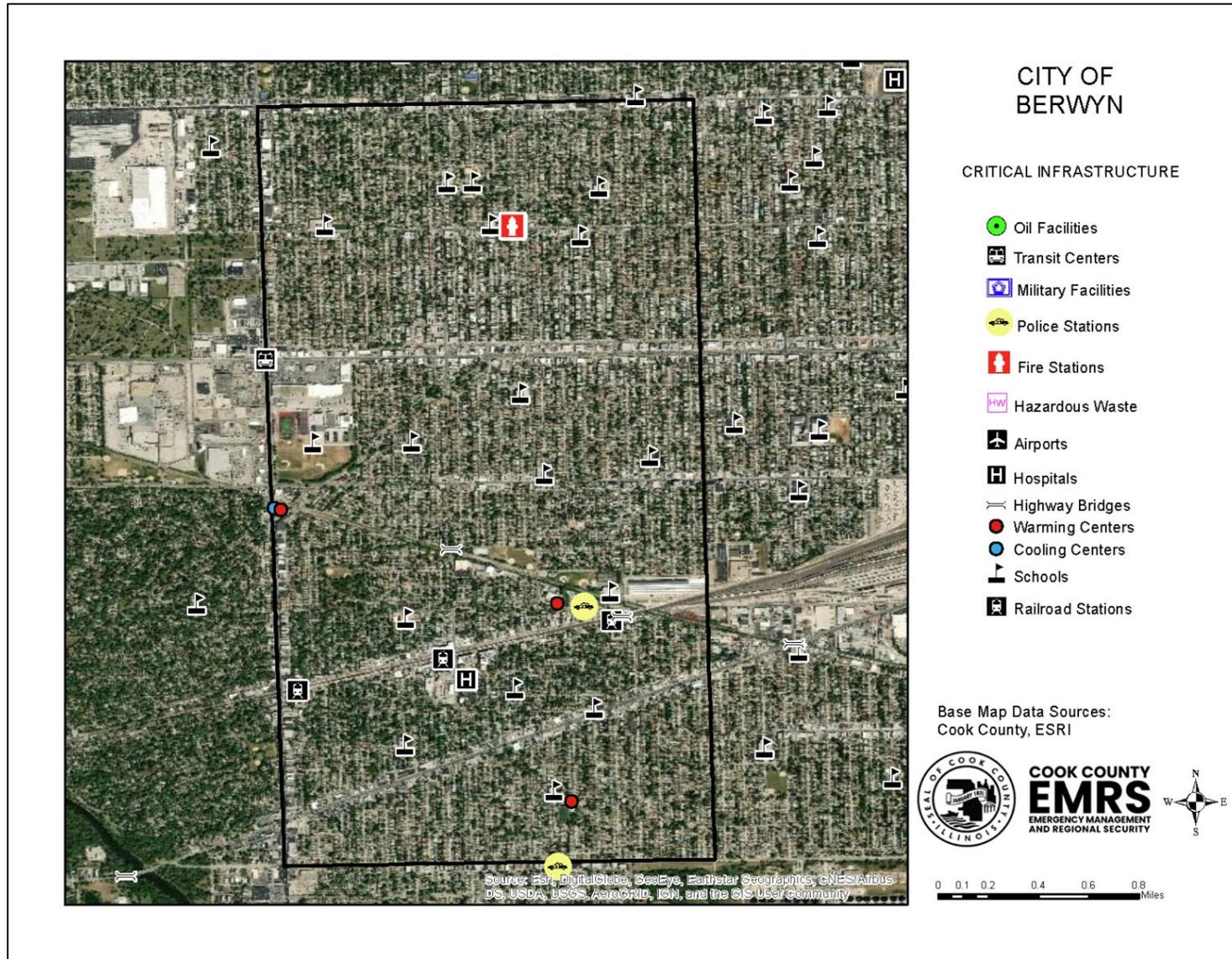
Future Needs to Better Understand Risk/Vulnerability

The City of Berwyn is working to convert all 655 alleys within the city limits to green alleys. The project is underway, with 21 alleys complete, but at a cost of approximately \$360,000 per alley it over-stresses the local budget. The City is in need of grant funding to move this project forward.

Additional Comments

No additional comments at this time.

Hazard Mapping





CITY OF BERWYN

PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

Mercalli Scale, Potential Shaking

II-III Weak

Data provided by the USGS Earthquake Hazards Program and Cook County.

Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal spectral response acceleration for 0.2- and 1.0-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of the maps were prepared by combining the hazard derived from spatially smoothed historical seismicity with the hazard from fault-specific sources. The acceleration values contoured are the random horizontal component. The reference site condition is firm rock, defined as having an average shear-wave velocity of 760 m/s in the top 30 meters corresponding to the boundary between NEHRP (National Earthquake Hazards Reduction program) site classes B and C.

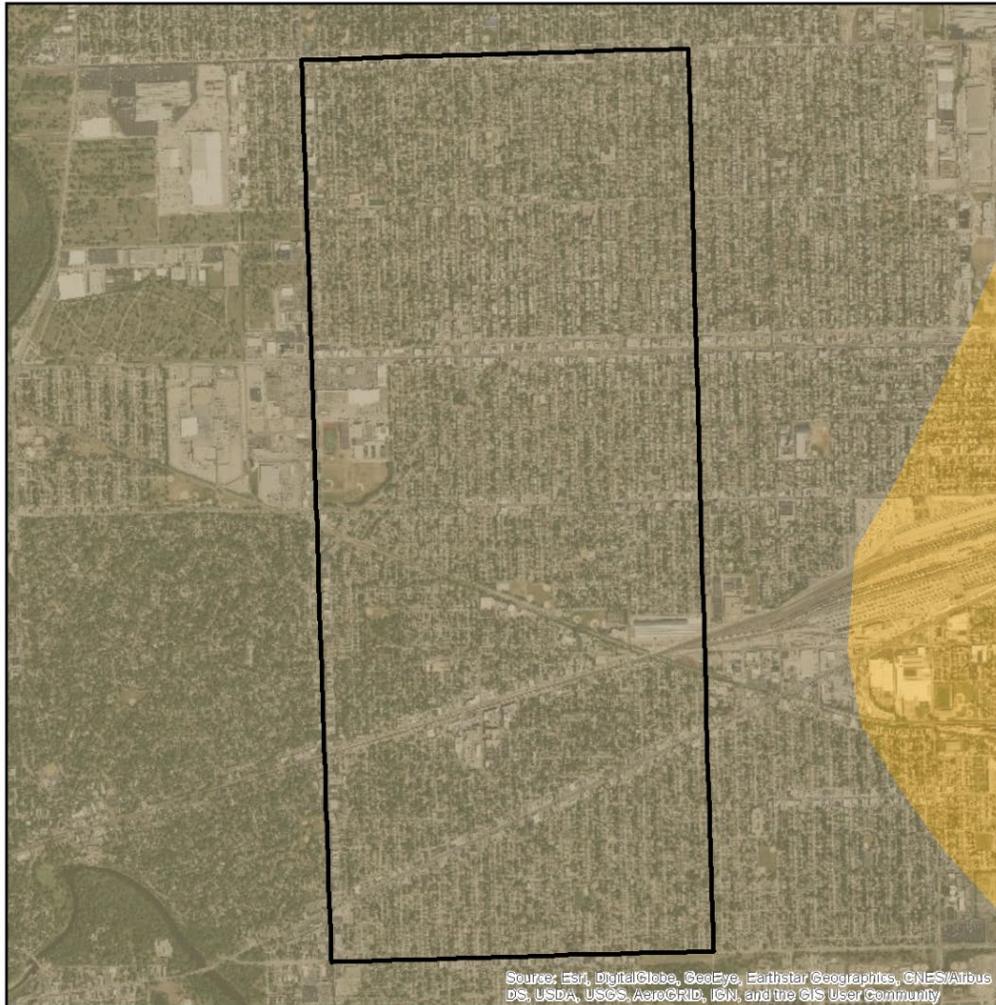
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CITY OF BERWYN

NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

TYPE

- C - Very Dense Soil, Soft Rock
- D - Stiff Soil
- F- Site Specific Evaluation

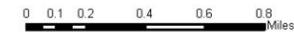
Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2769 Map of Surficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Pennell (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the amplification.

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DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from <http://www.fema.gov>.

